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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,281	10/28/2003	Christopher M. Wolfe	04609/61949B	3957
32047	7590	11/24/2004		
GROSSMAN, TUCKER, PERREAULT & PFLEGER, PLLC 55 SOUTH COMMERICAL STREET MANCHESTER, NH 03101			EXAMINER WATKINS III, WILLIAM P	
			ART UNIT	PAPER NUMBER

1772

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,281

Applicant(s)

WOLFE ET AL.

Examiner

William P. Watkins III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The rejection under 35 U.S.C. 102 over Masaru et al. in section 3 of the office action mailed 19 August 2004 is withdrawn in view of the applicant's argument and amendment to the claims filed 19 August 2004.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masaru et al. (U.S. 6,576,856 B2) in view of Plank, Jr. et al. (U.S. 5,672,405).

Masaru et al. teach a key cap molded through a thin film with an aperture (see Figure 7, key cap core (element 4) is molded through the aperture in film (element 2) with anchor portion (element 5)). The film may be 50 to 200 microns in thickness. The key cap may be molded of polycarbonate and the

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film maybe polyester or polycarbonate (col. 4, lines 45-50, col. 6, lines 5-20 and 35-45). Plank, Jr. et al. teach the use of flaps formed around a hole in a sheet material, which has a material molded through the hole in order to better hold the molded material to the sheet (Figure 3, abstract). The instant invention claims the use of flaps around an aperture in a film, which has a key cap molded through an aperture in the sheet, which is attached to the sheet by an anchor portion and by the flaps, which are embedded in the molded material. It would have been obvious to one of ordinary skill in the art to have put flaps around the aperture in Masaru et al. in order to better hold the key cap to the film because of the teachings of Plank, Jr. et al.

4. Applicant's arguments filed 19 August 2004 have been fully considered but they are not persuasive.

Applicant argues that Masaru et al. in view of Plank, Jr. et al. does not teach an anchor retainer portion and a keycap anchor portion as recited by claim 1 or two anchor portions as required by claim 12. The examiner disagrees, Plank, Jr. et al. teaches a raised portion of a substrate where the resin is molded through the hole and around the raised portion. Raising

the substrate film edge of Masaru et al. and molding the resin through the film hole of the substrate and around the raised edge of the substrate as taught by Plank, Jr. et al. would form both an anchor portion below the hole of the film substrate and an anchor portion around the retainer edge on the upper surface of the substrate. This meets the limitations of an anchor retainer portion and a keycap anchor portion as recited by claim 1. Regarding claim 12 Plank, Jr. et al. teaches multiple holes with raised portions in a substrate with a single molded resin matrix on both sides of the perforated sheet (see Figure 11). It would thus be obvious to use more than one hole to mold and secure a resin matrix around a given portion of a substrate. The examiner notes that Masaru et al. is not limited to a single hole to form a core structure (col. 5, lines 25-27).

Applicant also argues that claim 21 in particular distinguishes because it would not be obvious to use ABS resin in the keycap core of Masaru et al. in view of Plank, Jr. et al. with a polycarbonate film substrate because the instant specification says that different materials do not adhere well together absent the instant disclosed anchor structures. Masaru et al. teaches that any known material used for key cores or film substrates can be used in the keycap molding of Masaru et

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al. (col. 5, lines 1-10). The examiner notes that both Duffy (U.S. 5,909,021, abstract, col. 2, lines 50-55) and Tsai (U.S. 5,807,002, col. 1, lines 30-40) cited by applicant in the IDS filed 28 October 2003, teach the use of ABS or styrene-butadiene resins in the cores of molded keycaps with polycarbonate top films without any of the instant claimed anchor structures. The examiner thus gives little weight to applicant's argument that one of ordinary skill in the art would not use ABS as the core resin with a polycarbonate substrate film when making the key moldings of Masaru et al.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

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expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

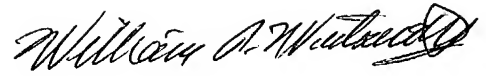
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WW/ww

November 19, 2004

A handwritten signature in cursive script, appearing to read "William P. Watkins III".

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**